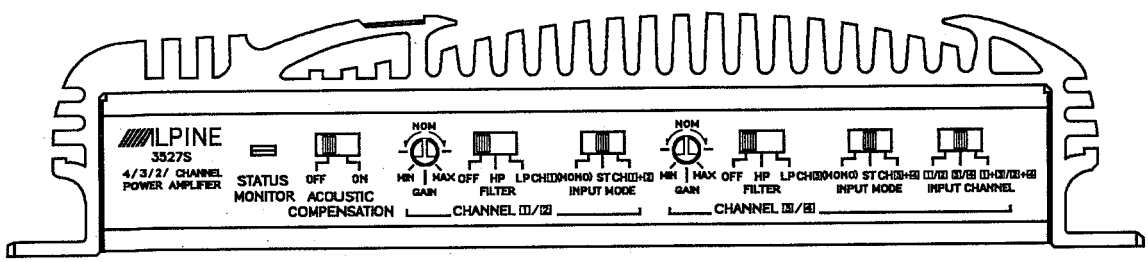
ALPINE®

SERVICE MANUAL

4/3/2/ Channel Power Amplifier



3527S

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Specifications

Power Output (20Hz~20kHz)	4ohm - 4channel, 0.2%T.H.D. : 25W
	4ohm - 4channel, 10%T.H.D. : 30W
	2ohm - 4channel, 0.8%T.H.D. : 30W
	2ohm - 4channel, 10%T.H.D. : 40W
	4ohm BTL, 1.5%T.H.D. : 70W
S / N Ratio (25W / ch 4ohm Input shorted)	90dB
Input Sensitivity (25W / ch Output)	RCA Input : 0.5V±2dB
	Speaker Input : 2V±0.5dB
Input Impedance	RCA Input : 10k±2kohm
	Speaker Input : 15±2ohm
Frequency Response (1kHz±1dB)	20Hz~40kHz
Current Drain	No Signal Input : 2A
	4ohm - 4channel, 10%T.H.D. : 25A
	2ohm - 4channel, 10%T.H.D. : 40A
	4ohm BTL, 1.5%T.H.D. : 35A
Residual Noise (4ohm×4 Input shorted)	1.2mV
Channel Separation (Input shorted at 1kHz)	55dB
Fuse Requirement	25A (For Battery Line)
Power Source	DC 14.4V (11V~16V)
Semiconductors	19 IC's, 36 Transistors, 10 Diodes, 4 Zener Diodes, 4 FET's
Dimension (W×H×D)	220×51×250mm
Weight	2.75kg

Note : Due to continuing product improvement, specifications and designs are subject to change without notice.

FEATURES

- **4/3/2-CHANNEL OPERATION**

  The 3527S can be used as:

  a. 4-channel amplifier, producing 25W per channel into 4 Ω, or 35W per channel into 2 Ω.

  b. 3-channel amplifier, producing 25W(4 Ω) or 35w(2 Ω) into channels 1 & 2, and 70W(4 Ω) into the third channel.

  c. 2-channel amplifier, producing 70W per channel into 4 Ω.

- **MULTIMODE CAPABILITY**

  The 3527S can power 2 pairs of stereo tweeter/midrange satellites and 1 or 2 bridged subwoofers simultaneously.

- **ACTIVE DIVIDING NETWORK**

  With two independent, built-in crossover networks, each pair of the 3527S channels will operate as a low-pass (subwoofer), high-pass (tweeter/midrange satellite) or full-range amplifier. The crossover is fixed at 80 Hz (18 dB per octave).

- **ACOUSTIC COMPENSATION CIRCUITRY**

  A selectable (Off or On) equalization curve can be added to the amplifier's output signal, compensating for the inherent non-linearities of the automobile interior. It extends low bass response and eliminates mid-bass boominess, giving the low frequency response of the audio system tightness and accuracy.

- **DUO-ß FEEDBACK CIRCUITRY**

  Alpine's proprietary Duo-Beta is a technologically advanced form of feedback circuitry. Duo-Beta supplies low negative feedback throughout the audio frequency bandwidth and very high negative feedback at DC.

  This stabilizes the amplifier, removes DC offset, and offers excellent total harmonic distortion (T.H.D.) characteristics. It also provides low transient intermodulation distortion (T.I.M.), excellent slew rate, stability, and musicality.

FEATURES

- **NO CURRENT LIMITING**
  Absence of current limiters in the audio section ensures low T.I.M., excellent transient response, and superb sonic quality.

- **LINE LEVEL AND SPEAKER LEVEL INPUT CAPABILITY**

- **INPUT MODE SELECTOR (MONO/ST/L+R)**
  This switch allows the user to specify the input signal entering the amplifier. Among other benefits, it eliminates the need for RCA-type Y-adaptors when bridging the amplifier.

- **INPUT CHANNEL SELECTOR**
  This switch allows the user to specify the input signal entering channels 3 and 4 of the amplifier.

- **POWER MOSFET DC-TO-DC SWITCHING MODE POWER SUPPLY**
  Provides excellent power output throughout the audio bandwidth (20Hz to 20kHz), Its soft clipping characteristics ensure superb transient response and musicality.

- **INDEPENDENT, CONTINUOUSLY ADJUSTABLE GAIN CONTROLS FOR CH1/2 AND CH3/4**
  Allow different level settings for both pairs of channels.

- **GOLD-PLATED RCA INPUT CONNECTORS**
  For most accurate signal transmission and lowest possible loss. Gold-plated terminals are immune to signal deterioration caused by corrosion in the connectors that can develop over time.

- **GOLD-PLATED, SCREW-DOWN POWER AND SPEAKER TERMINALS**
  For high definition, minimum loss power transfer and oxidization resistance.

FEATURES

- **FULLY DISCRETE, COMPLEMENTARY OUTPUT CIRCUITRY**
  For excellent reliability, superb sonic performance and high current capability for accurate transient response.

- **HIGH PERFORMANCE, LOW NOISE, AUDIOPHILE QUALITY ACTIVE AND PASSIVE COMPONENTS**
  For best possible performance and consistency from unit to unit.

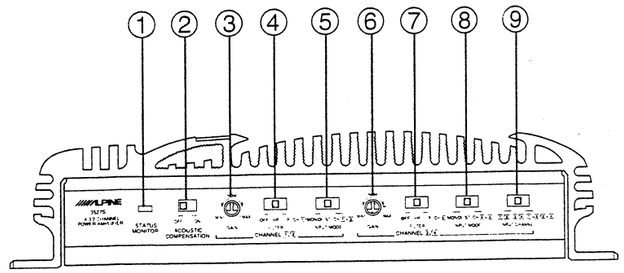
- **THIRD-ORDER, (18 dB PER OCTAVE) CAPACITIVE/INDUCTIVE POWER SUPPLY INPUT AND OUTPUT FILTERING**
  Prevents radio frequency interference (RFI) and immunity to system noises (such as alternator whine).

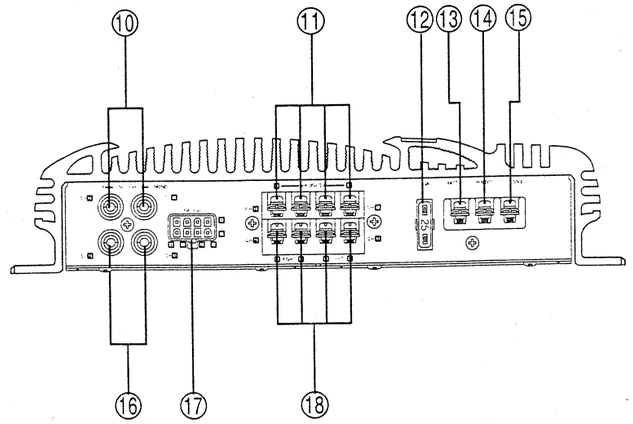
- **S.T.A.R. CIRCUITRY**
  The Alpine-developed Signal Transit for Accurate Response circuit topology improves sonic properties by reducing interaction between different sections of the circuitry.

- **EXTRA HEAVY DUTY CONSTRUCTION**
  Glass-epoxy printed circuit boards and separate high current power transfer bus-bars for primary voltage and ground connections inside the amplifier.

- **STATUS MONITOR**
  This indicator illuminates in green when the amplifier is on and operational. This light will turn orange if any internal protection circuitry is activated. In case of an installation problem, the STATUS MONITOR can aid in troubleshooting the system.

SWITCHES AND TERMINALS





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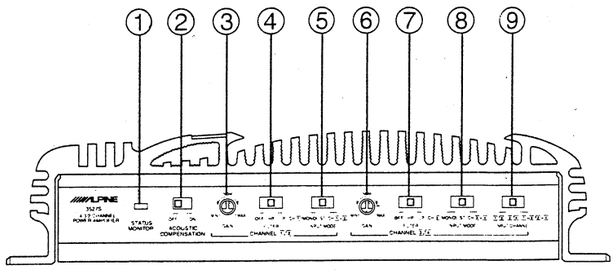
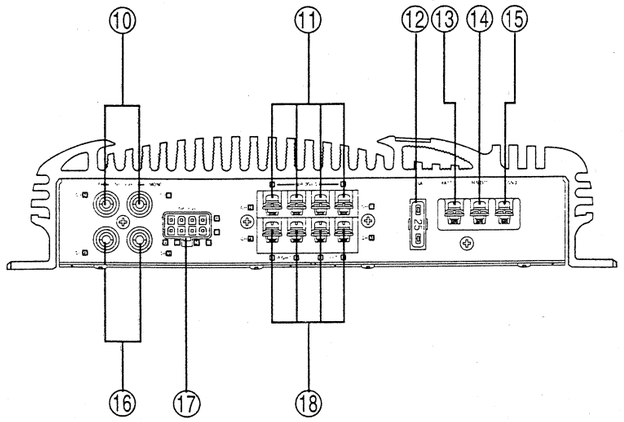




SWITCHES AND TERMINALS

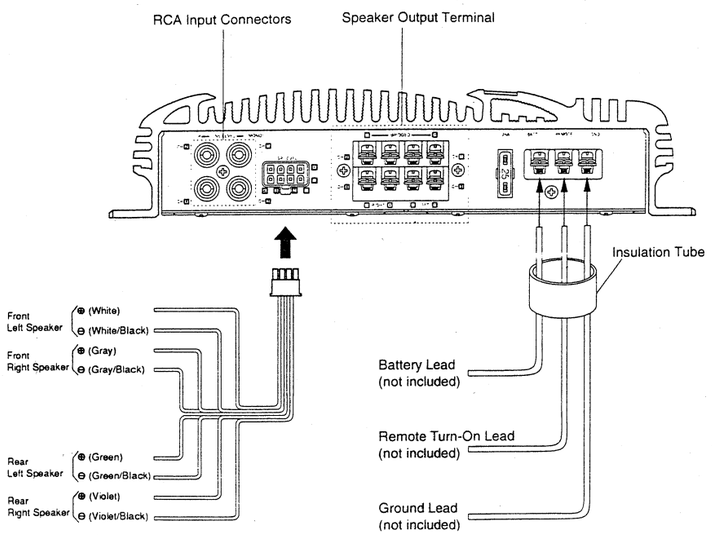
① Status Monitor
② Acoustic Compensation Switch
③ Input Gain Adjustment Control (Channels 1/2)
④ Active Dividing Network Mode Selector Switch (Channels 1/2)
⑤ Input Mode Selector Switch (Channel 1/2)

⑥ Input Gain Adjustment Control (Channels 3/4)
⑦ Active Dividing Network Mode Selector Switch (Channels 3/4)
⑧ Input Mode Selector Switch (Channels 3/4)
⑨ Input Channel Selector Switch
⑩ RCA Input Jacks (Channels 1/2)

⑪ Speaker Output Terminals (Channels 1/2)
⑫ Fuse Block
⑬ Battery Lead Terminal
⑭ Remote Turn-On Lead Terminal
⑮ Ground Lead Terminal

⑯ RCA Input Jacks (Channels 3/4)
⑰ Speaker Input Connector
⑱ Speaker Output Terminal (Channels 3/4)

CONNECTIONS



Before making connections, be sure to turn the power off to all audio components. Insulation tubes for the speaker leads and the power supply leads are supplied with the 3527S, route the speaker leads and the power supply leads separately through these tubes.

CAUTION:
When the INPUT CHANNEL selector switch is in the 3/4 or 1+3/2+4 mode, keep the CH 3/4 RCA inputs of the 3527S connected to a signal source at all times. Failure to do so may result in very high output distortion during amplifier operation.
This is due to the special grounding characteristics that have been implemented in the 3527S to prevent installation related noises from entering the system.

CONNECTIONS

- **Speaker Output Terminals**
  The 3527S has two sets of speaker outputs. Be sure to observe correct speaker output connections and phasing. In the stereo mode, connect the right and left positive outputs to the right and left positive speaker terminals; connect the right and left negative outputs to the right and left negative speaker terminals.
  In the bridged mode, connect the left positive output to the positive speaker terminal and the right negative output to the negative speaker terminal.
  NOTE:
  Never connect any of the speaker leads together or to chassis ground.
- **RCA Input Jacks**
  Connect these jacks to the line out leads on your head unit using RCA extension cables (sold separately). Be sure to observe correct channel connections; Left to Left, Right to Right, Front to Front, and Rear to Rear.
- **Ground Lead (not included)**
  Connect this lead securely to a clean, bare metal spot on the vehicle's chassis. Verify this point to be a true ground by checking for continuity between that point and the negative (–) terminal of the vehicle's battery. Ground all your audio components to the same point on the chassis to prevent ground loops.
- **Battery Lead (not included)**
  Connect this lead directly to the positive (+) terminal of the vehicle's battery. *Do not connect this lead to wiring in the vehicle's electrical system.* Be sure to add a 40 amp (or two 20 A fuses in parallel) as close as possible to the battery's positive (+) terminal. This fuse will protect your vehicle's electrical system in case of a short circuit. If you need to extend this lead, the wire gauge should be 8 AWG or larger.
- **Speaker Input Leads**
  When operating this amplifier with head units not equipped with preamp output connectors, the Speaker Input leads should be used. There wires will connect directly to the speaker output wires of the head unit. The 3527S will accept output from either high power or standard power head units.
- **Insulation Tube**
  Use these tubes to cover the power and speaker terminals after connections have been made. This will prevent inadvertent shorting of the terminals.

3527S

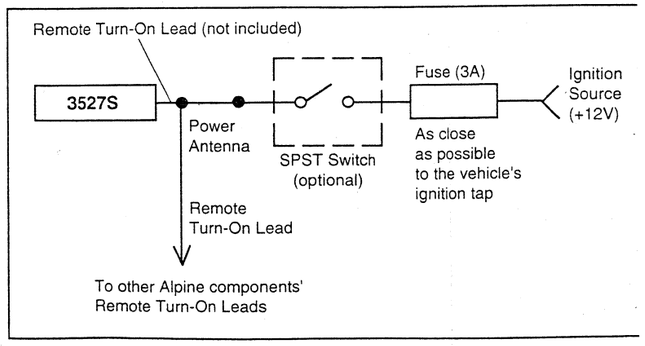
CONNECTIONS

- **Remote Turn-On Lead (not included)**
  Connect this lead to the remote turn-on or power antenna (positive trigger, (+) 12V only) lead of your head unit.

  Please check your head unit for the conditions listed below:

  a. The head unit does not have a remote turn-on or power antenna le
  b. The head unit's power antenna lead is activated only when the rac on (turns off in the tape or CD Mode).
  c. The head unit's power antenna lead is logic level output (+) 5V, negative trigger (grounding type), or cannot sustain (+) 12V when connected to other equipment in addition to the vehicle's power antenna. If any of the above conditions exist, the remote turn-on le of your 3527S must be connected to a switched power source (ign tion) in the vehicle. Be sure to use a 3A fuse as close as possible this ignition tap. Using this connection method, the 3527S will turn and stay on as long as the ignition switch is on.

  If this is objectionable, a SPST (Single pole, Single Throw) switch, in addition to the 3A fuse mentioned above, may be installed in-line on t 3527S turn-on lead. This switch will then be used to turn on (and off) 3527S. Therefore, the switch should be mounted so that is accessible the driver. Make sure the switch is turned off when the vehicle is not running. Otherwise, the amplifier will remain on and drain the battery.



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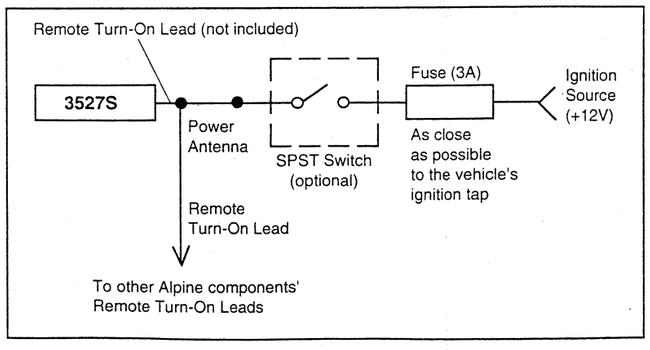
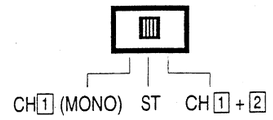


SWITCH SETTINGS

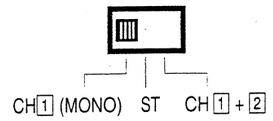
Input Mode Selector Switches ⑤ and ⑧

The following switch descriptions apply to CH 1/2. The same explanations will also apply to CH 3/4. Simply replace the call-outs for CH 1 with CH 3; replace 1+2 with 3+4.

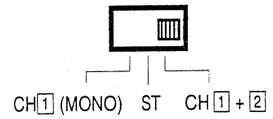
a) Set to the "ST" position (center) when the two channels are used in stereo.



b) Set to the "1 (MONO)" position when the two channels are used for one channel of a stereo or bridged system.

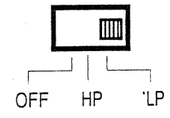


c) Set to the "1 + 2" position when the two channels are used for a subwoofer system which uses the right channel and left channel signals summed.



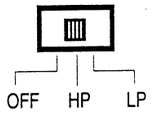
Active Dividing Network Mode Selector Switches ④ and ⑦

a) Set to the "LP" position when the amplifier is used for the low-pass (subwoofer) system. The frequencies higher than 80 Hz will be cut (at a

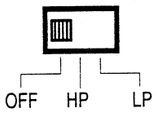


SWITCH SETTINGS

b) Set to the "HP" position when the 3527S is used for the high-pass (tweeter/midrange) system. The frequencies lower than 80 Hz will be cut (at a rate of 18 dB per octave).



c) Set to the "OFF" position when the 3527S is used for the regular stereo system with full-range speakers. The full bandwidth will be output without cutting the high or low frequencies



Input Gain Adjustment Controls ③ and ⑥

After setting your head unit's volume control 1/4 of a turn down from the maximum output level, rotate the Input Gain Adjustment Controls ③ and ⑥ with a #0 flat blade screwdriver and adjust the input gain to the point where there is maximum volume with no distortion.

Status Monitor

This indicator lights in green when the power is on. The 3527S has built-in protection circuitry. If, for some reason, this protection circuit is activated, the indicator turns orange. If this happens, turn the system off, find the cause of the problem and remedy the situation. This includes checking all your connections and wiring. If the indicator remains orange when the system is turned on, consult your authorized Alpine dealer.

NOTE:

The indicator will illuminate in orange for a few seconds when the power is turned on as the turn on muting circuit is activated. This is normal.

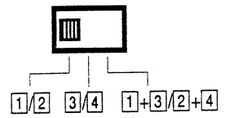
SWITCH SETTINGS

Input Channel Selector Switch ⑨ (CH 3/4)

a) Setting this switch to [1]/[2] will send the signal at the inputs of CH1/2 to CH3/4 of the 3527S. This eliminate the need for Y-adaptors when using a head unit with a single pair of pre-amp output.

b) Set this switch to [3]/[4] to have the inputs of CH3/4 accept independent input signals. An example of this application would be the use of a head unit with dual pre-amp outputs.

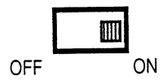
c) Setting this switch to [1]+[3]/[2]+[4] will sum the CH1 & CH3 input and send it to CH3 while the CH2 & CH4 inputs are summed and sent to CH4. When used with a dual-preamp output head unit, this will provide a non-fading (constant bass) subwoofer output with fadable front and rear output going to a separate Satellite amplifier.



Acoustic Compensation Selector Switch

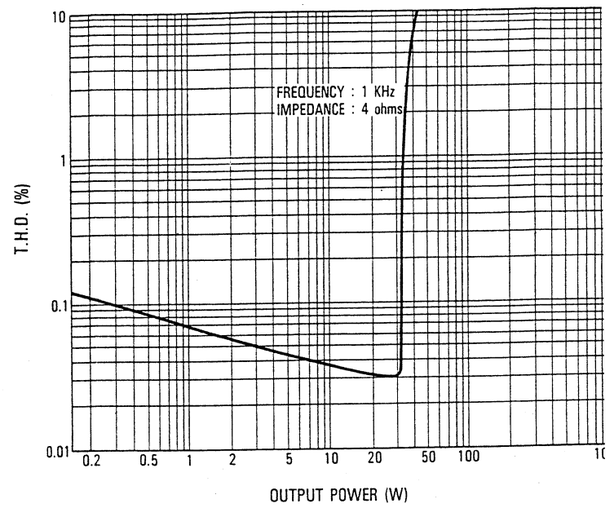
a) Turn this switch on to compensate for the loss of low bass and to reduce midbass boominess.

b) Listen to the system with the switch in both the ON and OFF positions. Since the response of the system can vary depending on vehicle type, interior size, and other characteristics of the listening area; choose the position that provides the best sound reproduction.

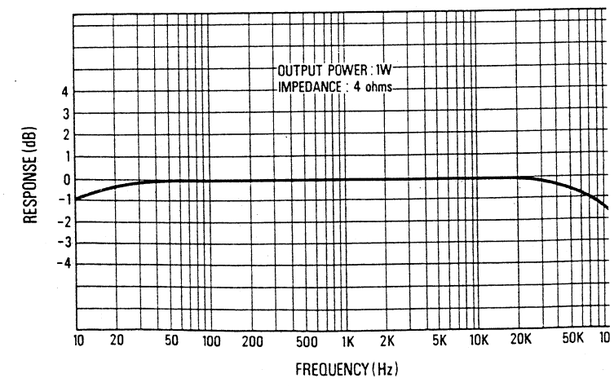


CHARACTERISTIC CURVES

POWER V.S. DISTORTION CURVE



FREQUENCY RESPONSE CURVE



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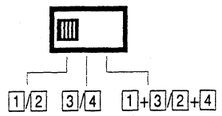

Compensation Selector Switch

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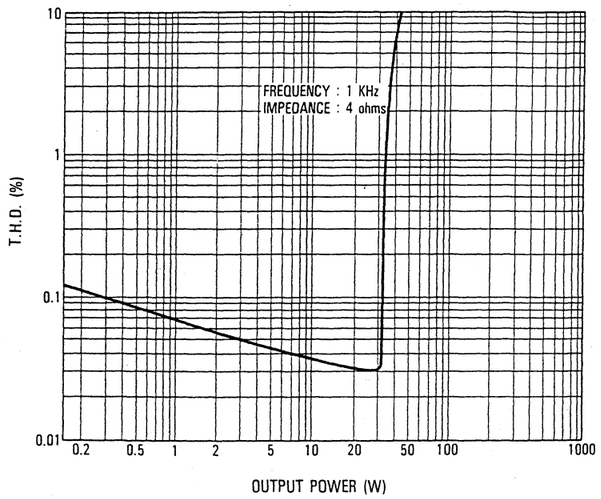
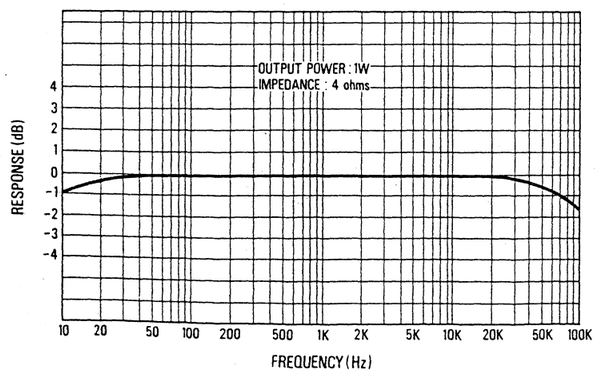
CHARACTERISTIC CURVES

POWER V.S. DISTORTION CURVE

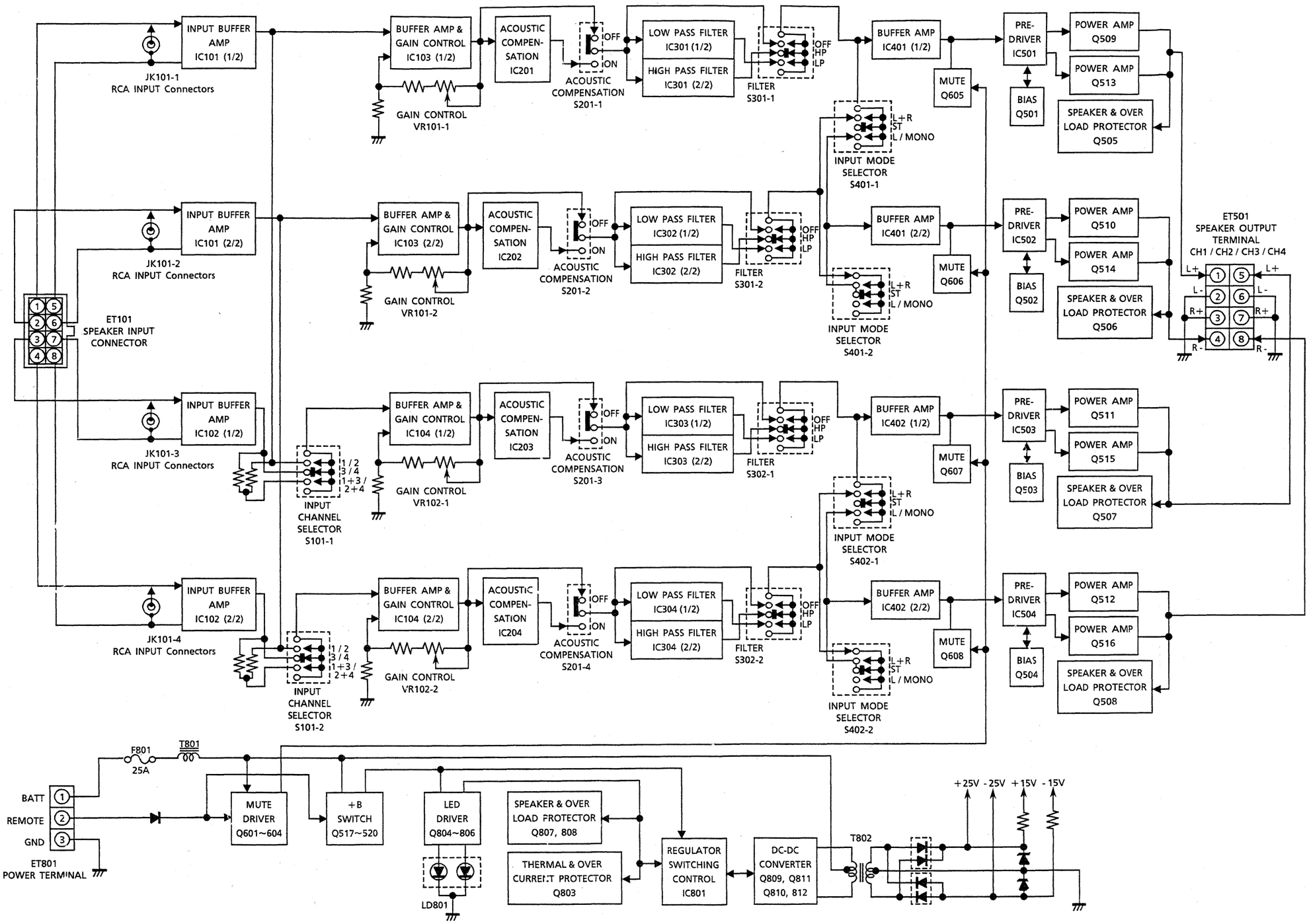


FREQUENCY RESPONSE CURVE



3527S

Block Diagram

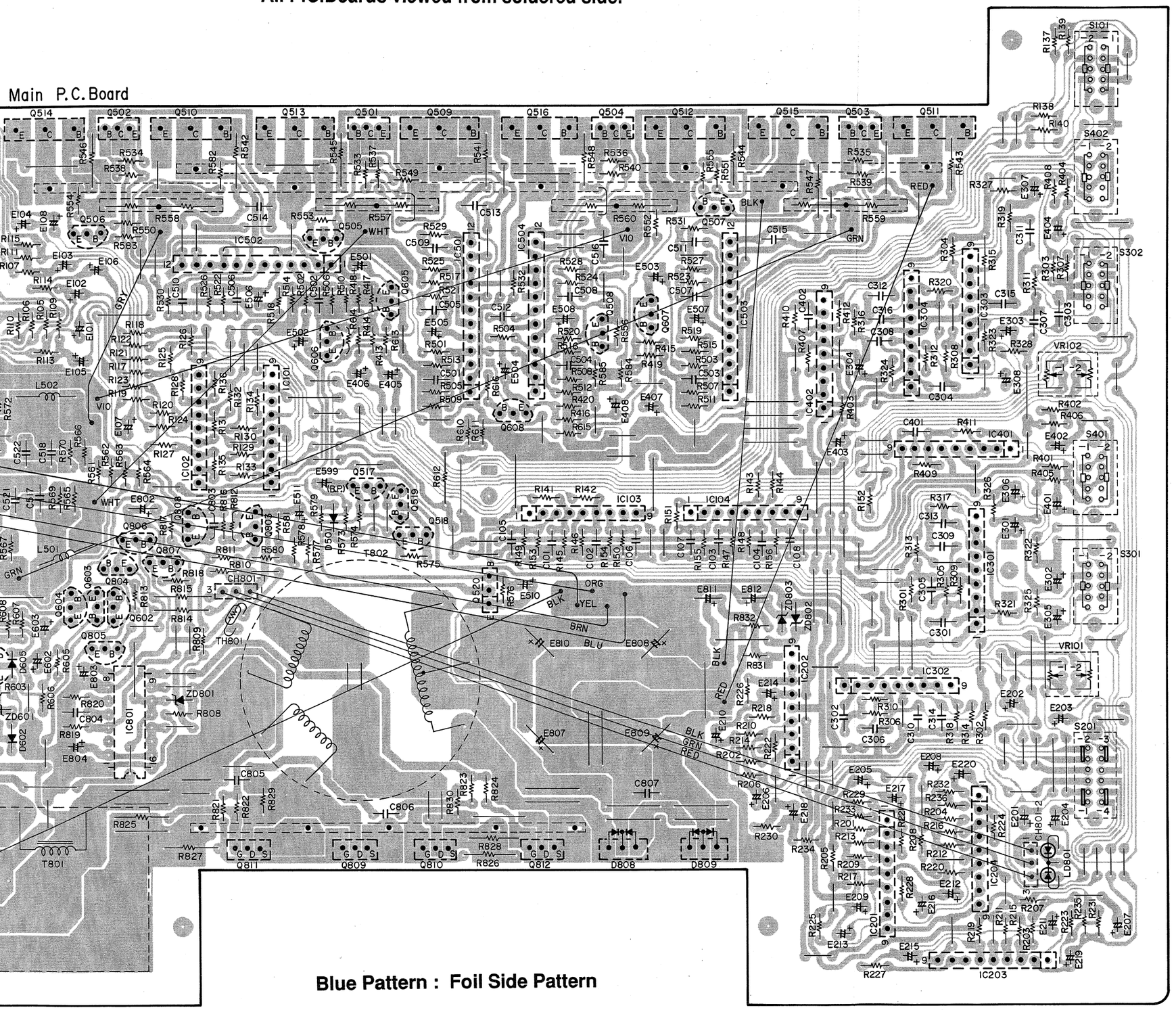


Parts Layout on P.C.Boards and Wiring Diagram

All P.C.Boards viewed from soldered side.

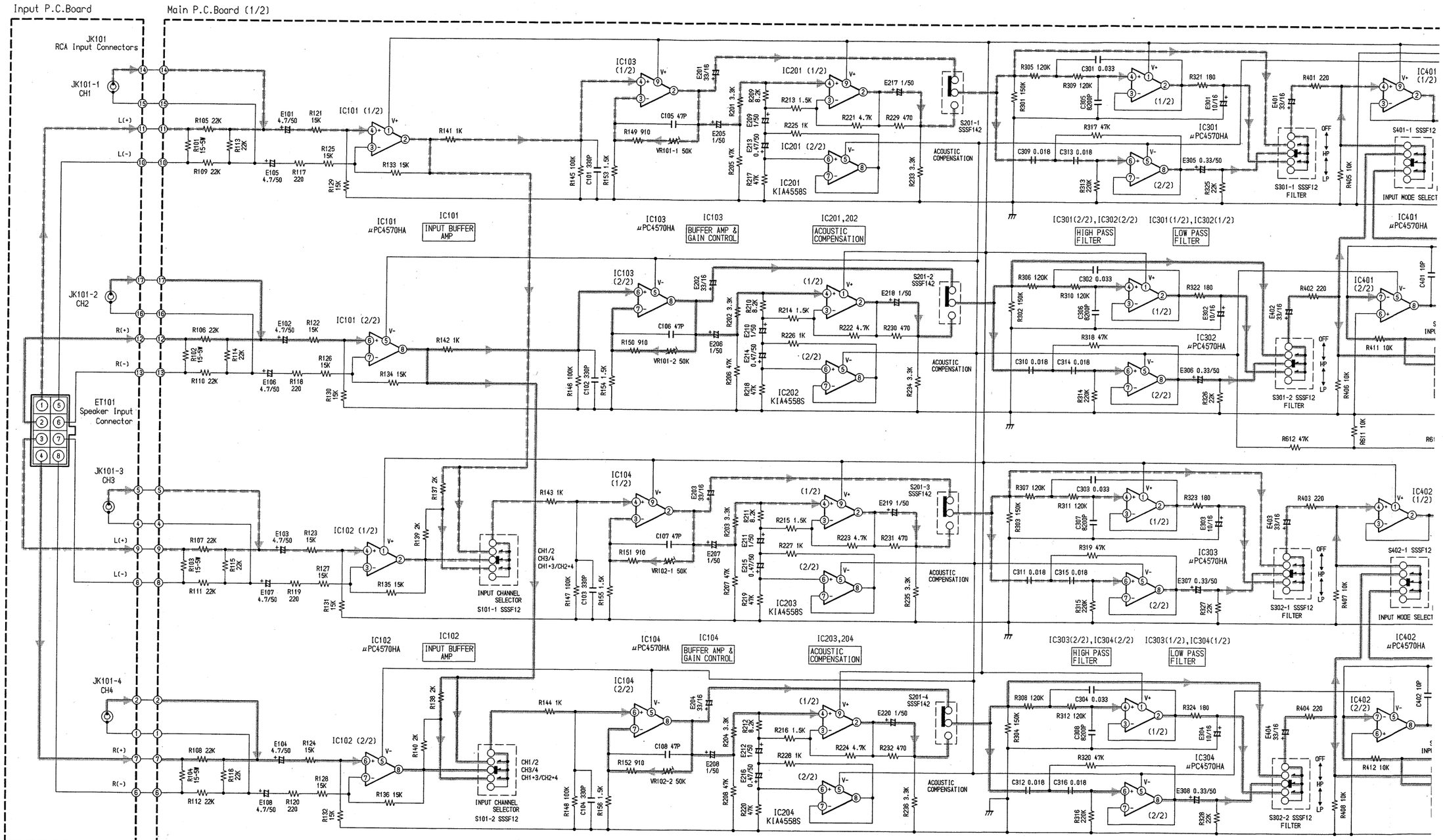
All P.C.Boards viewed from soldered side.

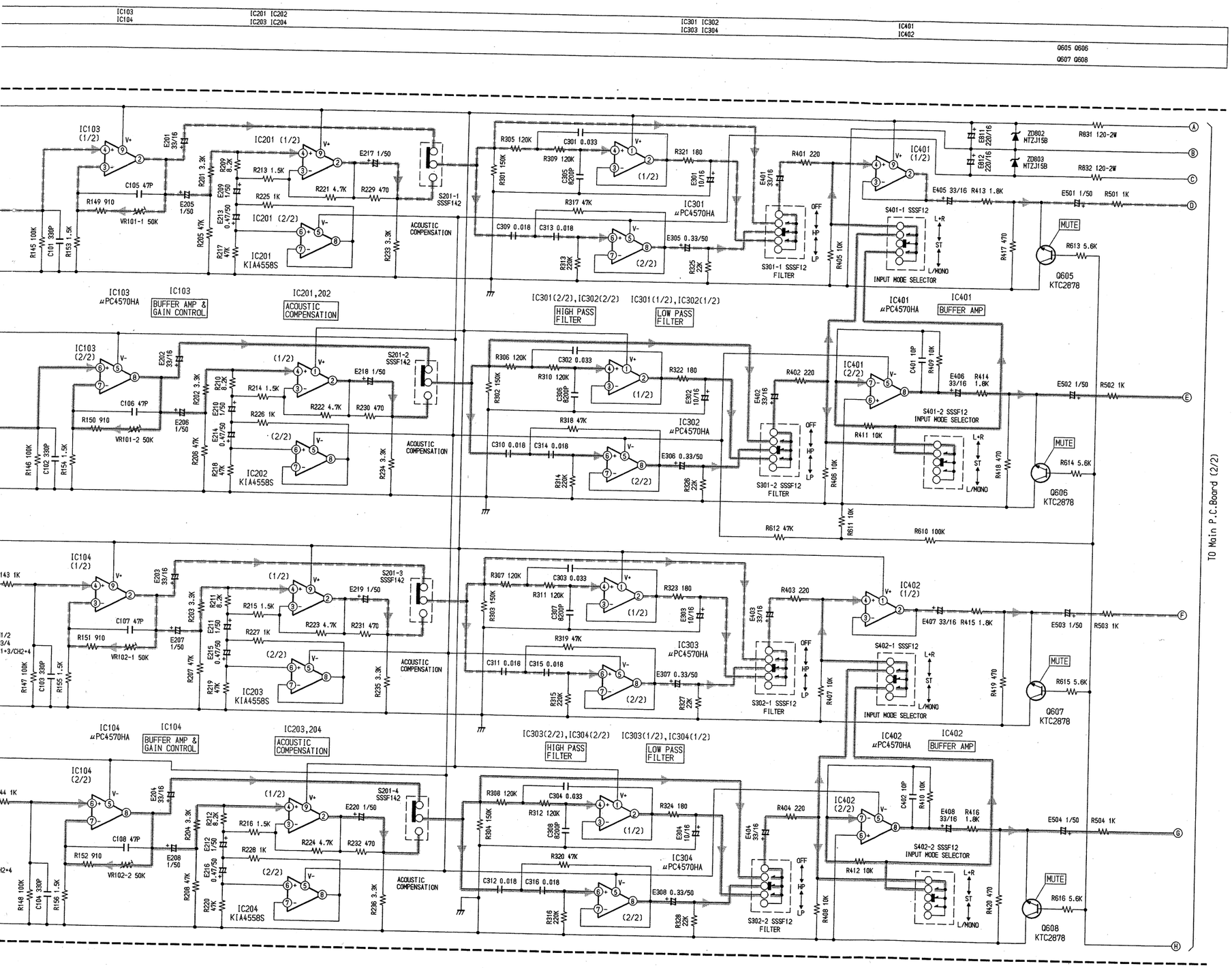
Main P.C. Board



Schematic Diagram (1/2)

IC	IC101 IC102	IC103 IC104	IC201 IC202 IC203 IC204	IC301 IC302 IC303 IC304	IC401 IC402
Transistor (Q)					





IC101

1	15V
2	1.54mV
3	0.96mV
4	1.6mV
5	-15V
6	1.6mV
7	0.4mV
8	1.59mV
9	NC

IC102

1	15V
2	1.7mV
3	1.7mV
4	1.6mV
5	-15V
6	1.6mV
7	0V
8	1.5mV
9	NC

IC103

1	NC
2	7.9mV
3	1.8mV
4	1.6mV
5	-15V
6	1.6mV
7	2.2mV
8	10.6mV
9	15V

IC104

1	NC
2	9.2mV
3	2mV
4	1.8mV
5	-15V
6	1.9mV
7	2.4mV
8	12mV
9	15V

IC201

1	NC
2	2.1mV
3	3.1mV
4	3.5mV
5	-15V
6	2.8mV
7	2.5mV
8	2.5mV
9	15V

IC202

1	15V
2	2.5mV
3	2.4mV
4	2.6mV
5	-15V
6	2.4mV
7	2.1mV
8	2.1mV
9	NC

IC203

1	NC
2	4.9mV
3	4.9mV
4	4.6mV
5	-15V
6	2.9mV
7	4mV
8	4mV
9	15V

IC204

1	NC
2	2.7mV
3	2.8mV
4	2.8mV
5	-15V
6	2.7mV
7	2.5mV
8	2.5mV
9	15V

IC301

1	15V
2	19.7mV
3	19.7mV
4	19.1mV
5	-15V
6	10.9mV
7	11.3mV
8	11.3mV
9	NC

IC302

1	15V
2	18.9mV
3	18.9mV
4	18.6mV
5	-15V
6	10.7mV
7	11.1mV
8	11.1mV
9	NC

IC303

1	15V
2	20.4mV
3	20.4mV
4	20.1mV
5	-15V
6	11.7mV
7	12.1mV
8	12.1mV
9	NC

IC304

1	15V
2	20.2mV
3	20.2mV
4	20.3mV
5	-15V
6	11.3mV
7	11.8mV
8	11.8mV
9	NC

IC401

1	NC
2	1.4mV
3	1.4mV
4	1.3mV
5	-15V
6	0V
7	1.4mV
8	1.3mV
9	15V

IC402

1	15V
2	1.8mV
3	1.8mV
4	1.3mV
5	-15V
6	0V
7	1.3mV
8	1.1mV
9	NC

	E	C	B
Q604	0V	12.3mV	0.57V
Q605	1.2mV	0V	-10.3V
Q606	1.2mV	0V	-10.3V
Q607	1.2mV	0V	-10.3V
Q608	1.2mV	0V	-10.3V

<Voltage Measuring Conditions>

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Meter
3. Measuring Reference Point : Between Ground
4. Measuring Condition : No Signal Input

NOTES :

1. All resistance values are in ohms. K=1,000 M=1,000,000
2. All capacitance values are in microfarads. $P=\frac{1}{1,000,000}$

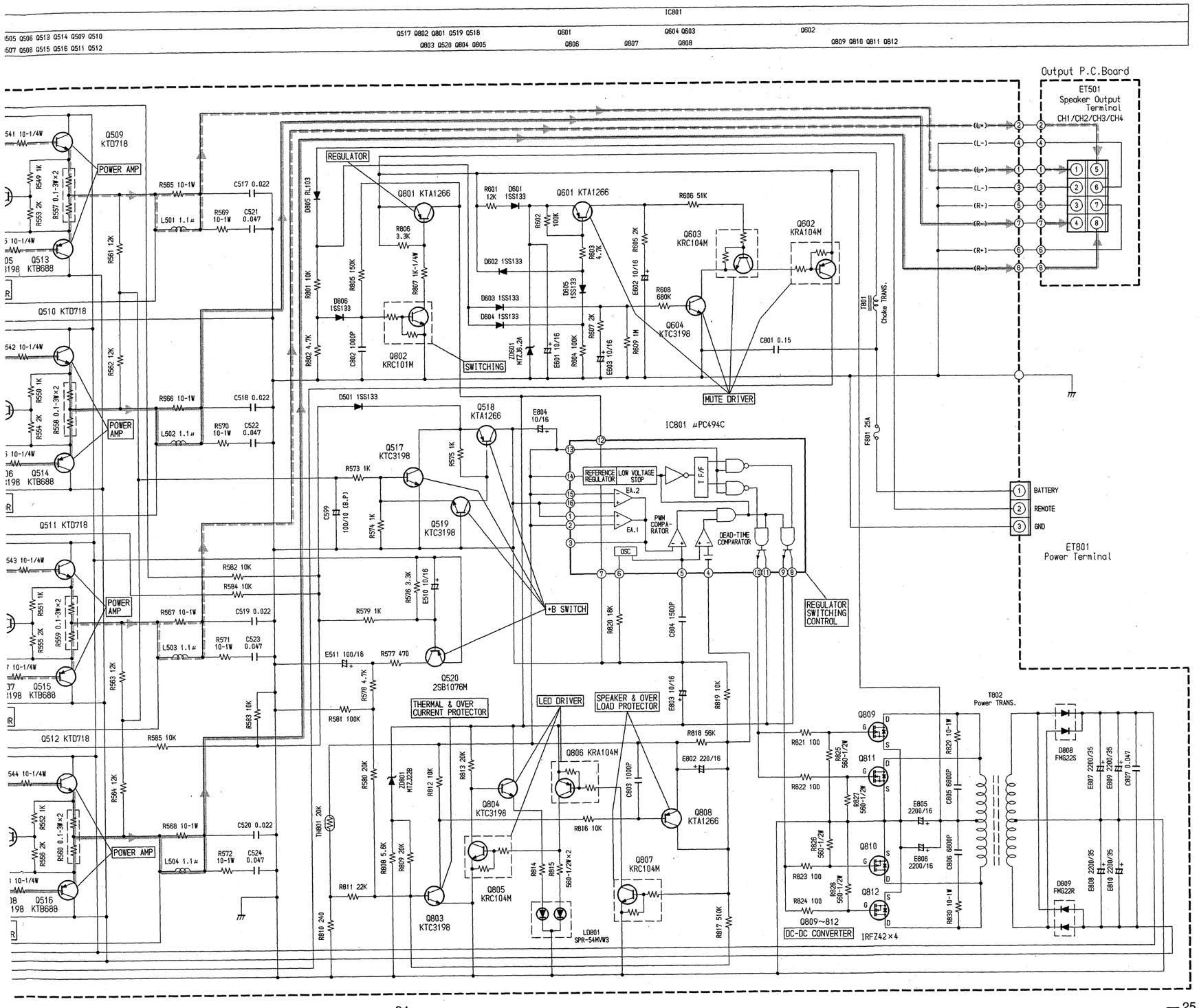
3527S 3527S

Schematic Diagram (2/2)

IC	IC501 IC502 IC503 IC504			IC801				
Transistor (Q)	Q501 Q502 Q503 Q504	Q505 Q506 Q513 Q514 Q509 Q510 Q507 Q508 Q515 Q516 Q511 Q512	Q517 Q802 Q801 Q519 Q518 Q803 Q520 Q804 Q805	Q601 Q806	Q807	Q604 Q603 Q808	Q602	Q809 Q810 Q811 Q81

Main P.C.Board (2/2)

TO Main P.C.Board (1/2)



IC501

1	24.7V
2	24.7V
3	18.6V
4	0.33V
5	0.32V
6	-23.1V
7	-1V
8	0.55V
9	-24.7V
10	-24.7V
11	-0.53V
12	0.56V

IC502

1	24.7V
2	24.7V
3	18.6V
4	0.33V
5	0.32V
6	-23.1V
7	-1V
8	0.55V
9	-24.7V
10	-24.7V
11	-0.53V
12	0.56V

IC503

1	24.7V
2	24.7V
3	18.6V
4	0.33V
5	0.32V
6	-23.1V
7	-1V
8	0.55V
9	-24.7V
10	-24.7V
11	-0.53V
12	0.56V

IC504

1	24.7V
2	24.7V
3	18.6V
4	0.33V
5	0.32V
6	-23.1V
7	-1V
8	0.55V
9	-24.7V
10	-24.7V
11	-0.53V
12	0.56V

IC801

1	0V
2	5V
3	NC
4	0.67V
5	1.7V
6	3.7V
7	0V
8	14.28V
9	5.1V
10	5.1V
11	14.28V
12	14.28V
13	5V
14	5V
15	5V
16	0V

	E	C	B		E	C	B
Q501	-1V	0.55V	-81mV	Q517	0V	24.37V	2.8mV
Q502	-1V	0.55V	-101mV	Q518	24.37V	0V	24.4V
Q503	-1V	0.55V	-0.3V	Q519	2.8mV	24.4V	0V
Q504	-1V	0.55V	-113mV	Q520	24.69V	41.8mV	24.68V
Q505	-4.6mV	24.9V	1.5mV	Q601	5.9V	12.7mV	5.9V
Q506	1.1mV	24.7V	6.2mV	Q602	14.38V	-10.3V	14.38V
Q507	-1.1mV	24.7V	4.2mV	Q603	12.3mV	14.38V	11.5mV
Q508	-0.4mV	24.7V	4.5mV	Q801	14.38V	14.28V	13.5V
Q509	4.7mV	24.7V	0.55V	Q802	0V	14.26V	2.8V
Q510	7mV	24.7V	0.59V	Q803	0V	5V	53.7mV
Q511	6.9mV	24.7V	0.59V	Q804	14.28V	14.28V	12.4V
Q512	7.1mV	24.7V	0.59V	Q805	0V	12.4V	3.7mV
Q513	-4.8mV	-24.7V	-0.53V	Q806	14.28V	3.7mV	14.3V
Q514	0.8mV	-24.7V	-0.57V	Q807	0V	14.3V	0.67V
Q515	-1.4mV	-24.7V	-0.57V	Q808	5V	0.67V	5V
Q516	-0.6mV	-24.7V	-0.57V				

	S	D	G
Q809	0V	14.38V	3.1V
Q810	0V	14.38V	3.1V
Q811	0V	14.38V	3.1V
Q812	0V	14.38V	3.1V

<Voltage Measuring Conditions>

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Meter
3. Measuring Reference Point : Between Ground
4. Measuring Condition : No Signal Input

NOTES :

1. All resistance values are in ohms. K=1,000 M=1,000,000
2. All capacitance values are in microfarads. $P=\frac{1}{1,000,000}$

Electrical Parts List

Resistor : Carbon resistors under 1 / 4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Capacitor : μF=microfarads, pF=picofarads

Abbreviations

RES.=	Resistor	CAP.=	Capacitor
C.F.=	Carbon Film	ELY.=	Electrolytic
M.F.=	Metal Film	CER.=	Ceramic
M.O.=	Metal Oxide Film	MYL.=	Mylar
M.P.=	Metal Plate	TAN.=	Tantalum
TR.=	Transistor	POLY.=	Polystyrol
TRANS.=	Transformer	PP.=	Polypropylene
CP.=	Chip	PLT.=	Polyethylene
		PF.=	Polyester Film

Main P. C. Board

IC's

Symbol No.	Part No.	Description
IC101	51T83403F03	μPC4570HA
IC102	51T83403F03	μPC4570HA
IC103	51T83403F03	μPC4570HA
IC104	51T83403F03	μPC4570HA
IC201	51E11392S01	KIA4558S
IC202	51E11392S01	KIA4558S
IC203	51E11392S01	KIA4558S
IC204	51E11392S01	KIA4558S
IC301	51T83403F03	μPC4570HA
IC302	51T83403F03	μPC4570HA
IC303	51T83403F03	μPC4570HA
IC304	51T83403F03	μPC4570HA
IC401	51T83403F03	μPC4570HA
IC402	51T83403F03	μPC4570HA
IC501	51T35425W01	μPC1270H
IC502	51T35425W01	μPC1270H
IC503	51T35425W01	μPC1270H
IC504	51T35425W01	μPC1270H
IC801	51T70759F01	μPC494C

Transistors

Symbol No.	Part No.	Description
Q501	48E08329S01	KSC2682
Q502	48E08329S01	KSC2682
Q503	48E08329S01	KSC2682
Q504	48E08329S01	KSC2682
Q505	48E08334S01	KTC3198
Q506	48E08334S01	KTC3198
Q507	48E08334S01	KTC3198
Q508	48E08334S01	KTC3198
Q509	48E06440S01	KTD718
Q510	48E06440S01	KTD718
Q511	48E06440S01	KTD718
Q512	48E06440S01	KTD718
Q513	48E06435S01	KTB688
Q514	48E06435S01	KTB688
Q515	48E06435S01	KTB688
Q516	48E06435S01	KTB688
Q517	48E08334S01	KTC3198
Q518	48E09036S02	KTA1266
Q519	48E08334S01	KTC3198
Q520	48T81069F01	2SB1076M
Q601	48E09036S02	KTA1266
Q602	48E10239S01	KRA104M
Q603	48E09035S02	KRC104M
Q604	48E08334S01	KTC3198
Q605	48E08335S01	KTC2878
Q606	48E08335S01	KTC2878
Q607	48E08335S01	KTC2878
Q608	48E08335S01	KTC2878
Q801	48E09036S02	KTA1266
Q802	48E11132S01	KRC101M
Q803	48E08334S01	KTC3198
Q804	48E08334S01	KTC3198
Q805	48E09035S02	KRC104M
Q806	48E10239S01	KRA104M
Q807	48E09035S02	KRC104M
Q808	48E09036S02	KTA1266
Q809	48E11130S01	FET, IRFZ42
Q810	48E11130S01	FET, IRFZ42
Q811	48E11130S01	FET, IRFZ42
Q812	48E11130S01	FET, IRFZ42

Diodes

Symbol No.	Part No.	Description
D501	48T68828F01	1SS133
D601	48T68828F01	1SS133
D602	48T68828F01	1SS133
D603	48T68828F01	1SS133
D604	48T68828F01	1SS133
D605	48T68828F01	1SS133
D805	48E11440S01	RL103
D806	48T68828F01	1SS133
D808	48T80987F01	FMG22S
D809	48T80987F02	FMG22R
ZD601	48T45012W29	Zener, MTZJ6.2A
ZD801	48T26033W71	Zener, MTZJ22B
ZD802	48T26033W57	Zener, MTZJ15B
ZD803	48T26033W57	Zener, MTZJ15B

Symbol No.	Part No.	Description
Switches		
S101	40T94668F01	Slide, SSSF12 (INPUT CHANNEL SELECTOR)
S201	40T94668F06	Slide, SSSF142 (ACOUSTIC COMPENSATION)
S301	40T94668S01	Slide, SSSF12 (FILTER)
S302	40T94668F01	Slide, SSSF12 (FILTER)
S401	40T94668F01	Slide, SSSF12 (INPUT MODE SELECTOR)
S402	40T94668F01	Slide, SSSF12 (INPUT MODE SELECTOR)
Coils / Transformers		
L501	24E06423S02	Spring, 1.1µH
L502	24E06423S02	Spring, 1.1µH
L503	24E06423S02	Spring, 1.1µH
L504	24E06423S02	Spring, 1.1µH
T801	25E08337S01	TRANS., Choke
T802	25E11441S01	TRANS., Power
LED / Thermistor		
LD801	48E11439S01	SPR-54MVW3 (ORG / GRN)
TH801	48E06441S01	Thermistor, 20K ohm
Capacitors		
C101	21E06808S02	CER., 330pF
E101	23E08383S16	ELY., 4.7µF / 50V
C102	21E06808S02	CER., 330pF
E102	23E08383S16	ELY., 4.7µF / 50V
C103	21E06808S02	CER., 330pF
E103	23E08383S16	ELY., 4.7µF / 50V
C104	21E06808S02	CER., 330pF
E104	23E08383S16	ELY., 4.7µF / 50V
C105	21E06806S01	CER., 47pF
E105	23E08383S16	ELY., 4.7µF / 50V
C106	21E06806S01	CER., 47pF
E106	23E08383S16	ELY., 4.7µF / 50V
C107	21E06806S01	CER., 47pF
E107	23E08383S16	ELY., 4.7µF / 50V
C108	21E06806S01	CER., 47pF
E108	23E08383S16	ELY., 4.7µF / 50V

Symbol No.	Part No.	Description
E201	23E08383S14	ELY., 33µF / 16V
E202	23E08383S14	ELY., 33µF / 16V
E203	23E08383S14	ELY., 33µF / 16V
E204	23E08383S14	ELY., 33µF / 16V
E205	23E08383S15	ELY., 1µF / 50V
E206	23E08383S15	ELY., 1µF / 50V
E207	23E08383S15	ELY., 1µF / 50V
E208	23E08383S15	ELY., 1µF / 50V
E209	23E08383S15	ELY., 1µF / 50V
E210	23E08383S15	ELY., 1µF / 50V
E211	23E08383S15	ELY., 1µF / 50V
E212	23E08383S15	ELY., 1µF / 50V
E213	23E08383S10	ELY., 0.47µF / 50V
E214	23E08383S10	ELY., 0.47µF / 50V
E215	23E08383S10	ELY., 0.47µF / 50V
E216	23E08383S10	ELY., 0.47µF / 50V
E217	23E08383S15	ELY., 1µF / 50V
E218	23E08383S15	ELY., 1µF / 50V
E219	23E08383S15	ELY., 1µF / 50V
E220	23E08383S15	ELY., 1µF / 50V
C301	08E07631S23	MYL., 0.033µF
E301	23S61524F13	ELY., 10µF / 16V
C302	08E07631S23	MYL., 0.033µF
E302	23S61524F13	ELY., 10µF / 16V
C303	08E07631S23	MYL., 0.033µF
E303	23S61524F13	ELY., 10µF / 16V
C304	08E07631S23	MYL., 0.033µF
E304	23S61524F13	ELY., 10µF / 16V
C305	08E07631S22	MYL., 8200pF
E305	23E08383S09	ELY., 0.33µF / 50V
C306	08E07631S22	MYL., 8200pF
E306	23E08383S09	ELY., 0.33µF / 50V
C307	08E07631S22	MYL., 8200pF
E307	23E08383S09	ELY., 0.33µF / 50V
C308	08E07631S22	MYL., 8200pF
E308	23E08383S09	ELY., 0.33µF / 50V
C309	08E07631S09	MYL., 0.018µF
C310	08E07631S09	MYL., 0.018µF
C311	08E07631S09	MYL., 0.018µF
C312	08E07631S09	MYL., 0.018µF
C313	08E07631S09	MYL., 0.018µF
C314	08E07631S09	MYL., 0.018µF
C315	08E07631S09	MYL., 0.018µF
C316	08E07631S09	MYL., 0.018µF
C401	21E06804S01	CER., 10pF
E401	23E08383S14	ELY., 33µF / 16V
C402	21E06804S01	CER., 10pF
E402	23E08383S14	ELY., 33µF / 16V
E403	23E08383S14	ELY., 33µF / 16V
E404	23E08383S14	ELY., 33µF / 16V
E405	23E08383S14	ELY., 33µF / 16V
E406	23E08383S14	ELY., 33µF / 16V

Symbol No.	Part No.	Description
E407	23E08383S14	ELY., 33μF / 16V
E408	23E08383S14	ELY., 33μF / 16V
C501	21E06808S02	CER., 330pF
E501	23E08383S15	ELY., 1μF / 50V
C502	21E06808S02	CER., 330pF
E502	23E08383S15	ELY., 1μF / 50V
C503	21E06808S02	CER., 330pF
E503	23E08383S15	ELY., 1μF / 50V
C504	21E06808S02	CER., 330pF
E504	23E08383S15	ELY., 1μF / 50V
C505	21E06804S01	CER., 10pF
E505	23S61523F15	ELY., 47μF / 16V
C506	21E06804S01	CER., 10pF
E506	23S61523F15	ELY., 47μF / 16V
C507	21E06804S01	CER., 10pF
E507	23S61523F15	ELY., 47μF / 16V
C508	21E06804S01	CER., 10pF
E508	23S61523F15	ELY., 47μF / 16V
C509	21E06804S02	CER., 22pF
C510	21E06804S02	CER., 22pF
E510	23S61524F13	ELY., 10μF / 16V
C511	21E06804S02	CER., 22pF
E511	23E10238S01	ELY., 100μF / 16V
C512	21E06804S02	CER., 22pF
C513	08E07631S18	MYL., 0.047μF
C514	08E07631S18	MYL., 0.047μF
C515	08E07631S18	MYL., 0.047μF
C516	08E07631S18	MYL., 0.047μF
C517	08E07631S10	MYL., 0.022μF
C518	08E07631S10	MYL., 0.022μF
C519	08E07631S10	MYL., 0.022μF
C520	08E07631S10	MYL., 0.022μF
C521	08E07631S18	MYL., 0.047μF
C522	08E07631S18	MYL., 0.047μF
C523	08E07631S18	MYL., 0.047μF
C524	08E07631S18	MYL., 0.047μF
C599	23E11142S01	ELY., (B.P) 100μF / 10V
E601	23S61524F13	ELY., 10μF / 16V
E602	23S61524F13	ELY., 10μF / 16V
E603	23S61524F13	ELY., 10μF / 16V
C801	08E07631S11	MYL., 0.15μF
C802	21E06808S03	CER., 1000pF
E802	23T16233W25	ELY., 220μF / 16V
C803	21E06808S03	CER., 1000pF
E803	23S61524F13	ELY., 10μF / 16V
C804	08E07631S15	MYL., 1500pF
E804	23S61524F13	ELY., 10μF / 16V
C805	08E07631S16	MYL., 6800pF
E805	23T55377W14	ELY., 2200μF / 16V
C806	08E07631S16	MYL., 6800pF
E806	23T55377W14	ELY., 2200μF / 16V
C807	08E07631S18	MYL., 0.047μF

Symbol No.	Part No.	Description
E807	23E09551S02	ELY., 2200μF / 35V
E808	23E09551S02	ELY., 2200μF / 35V
E809	23E09551S02	ELY., 2200μF / 35V
E810	23E09551S02	ELY., 2200μF / 35V
E811	23T16233W25	ELY., 220μF / 16V
E812	23T16233W25	ELY., 220μF / 16V

Resistors

R101	06E11438S01	Cement, 15 ohm 5W
R102	06E11438S01	Cement, 15 ohm 5W
R103	06E11438S01	Cement, 15 ohm 5W
R104	06E11438S01	Cement, 15 ohm 5W
R557	06E11437S01	Cement, 0.1 ohm 3W×2
R558	06E11437S01	Cement, 0.1 ohm 3W×2
R559	06E11437S01	Cement, 0.1 ohm 3W×2
R560	06E11437S01	Cement, 0.1 ohm 3W×2
R565	06E08324S01	M.O., 10 ohm 1W
R566	06E08324S01	M.O., 10 ohm 1W
R567	06E08324S01	M.O., 10 ohm 1W
R568	06E08324S01	M.O., 10 ohm 1W
R569	06E08324S01	M.O., 10 ohm 1W
R570	06E08324S01	M.O., 10 ohm 1W
R571	06E08324S01	M.O., 10 ohm 1W
R572	06E08324S01	M.O., 10 ohm 1W
R814	06E09412S05	M.F., 560 ohm 1/2W
R815	06E09412S05	M.F., 560 ohm 1/2W
R825	06E09412S05	M.F., 560 ohm 1/2W
R826	06E09412S05	M.F., 560 ohm 1/2W
R827	06E09412S05	M.F., 560 ohm 1/2W
R828	06E09412S05	M.F., 560 ohm 1/2W
R829	06E08324S01	M.O., 10 ohm 1W
R830	06E08324S01	M.O., 10 ohm 1W
R831	06E11436S01	M.O., 120 ohm 2W
R832	06E11436S01	M.O., 120 ohm 2W
VR101	18T45314W01	Variable, 50K ohm
VR102	18T45314W01	Variable, 50K ohm

Miscellaneous

ET101	09E11449S01	Speaker Input Connector (8P)
ET501	29T35595W08	Speaker Output Terminal (8P)
ET801	29T55522W01	Power Terminal (3P)
F801	65S58596F07	Fuse, Auto 25A (For Battery Line)
JK101	09T81475F04	RCA Input Connectors (4P)

Cabinet Assembly Parts List

Note : No parts number on parts list are not supplied.

Symbol No.	Index	Part No.	Description
1	3-B	27E11485S01	Chassis, Front
5	2-E	14E11444S01	Insulator, Sheet
8	3-B	61E11486S01	Lens, LED
12	4-E	14E11458S01	Insulator, Sheet-A
13	3-C	14E11487S01	Insulator, Sheet-B
14	2-C	03E09509S01	Screw, W/Washer (M3×9)
15		03E09417S05	Screw, Bind (M2.6×5)
16		03E09417S06	Screw, Bind (M3×11)
17		03E09417S07	Screw, Bind (M3×7)
18	3-B	03E09417S08	Screw, Bind (M3×5)
19		03E09416S10	Screw, Pan (M3×8)
20	3-C	15E11445S01	Cover, Switch

Symbol No.	Index	Part No.	Description

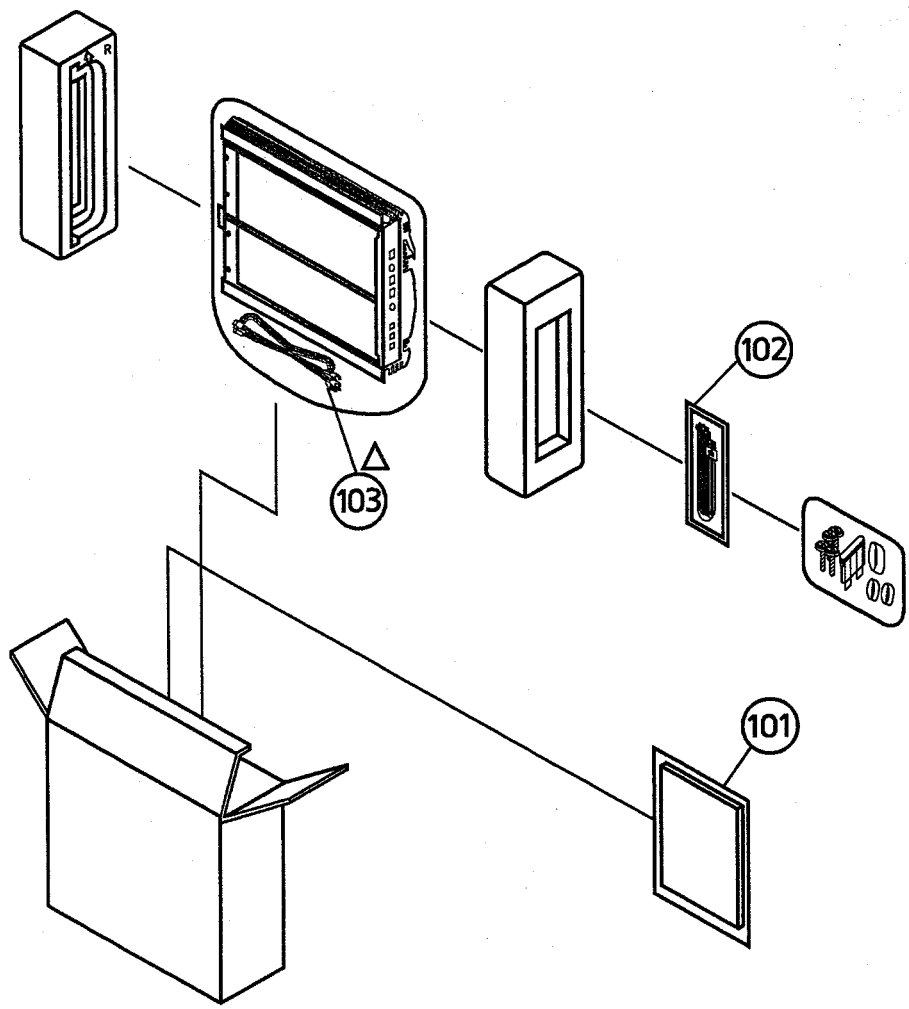
Packing Assembly Parts List

Symbol No.		Part No.	Description
○	101	68P50958W20	Owner's Manual
△	101	68P50958W33	Owner's Manual
	102	01E11443S01	Assy., Speaker Input Wire
△	103-1	01E11137S01	Assy., Battery Wire
△	103-2	01E11138S01	Assy., GND Wire
△	103-3	01E11139S01	Assy., Remote Wire

Symbol No.	Part No.	Description

Notes : ○ : For North American Model Only, △ : For General Foreign Model Only,
Others : Common.

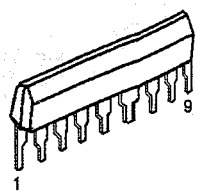
Packing Method View

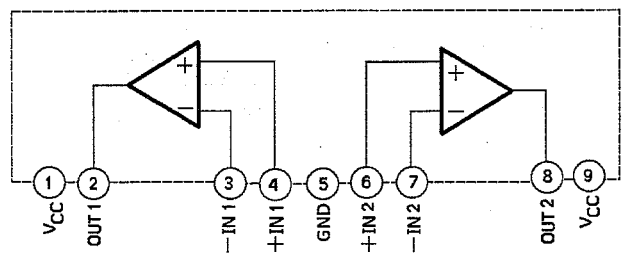


Notes : △ : For General Foreign Model Only, Others : Common.

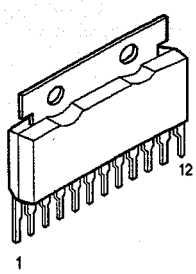
Semi - Conductor Lead Identifications

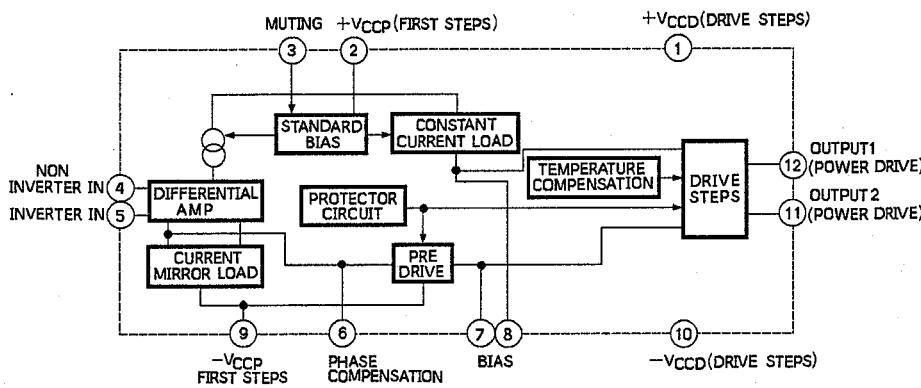
μPC4570HA : IC101~104, 301~304, 401, 402
KIA4558S : IC201~204





μPC1270H : IC501~504





μPC494C : IC801